## Contents to volume 105

## Computational physics

Ixaru, L.Gr. Operations on oscillatory functions	1
Cary, J.R., S.G. Shasharina, J.C. Cummings, J.V.W. Reynders and P.J. Hinker Comparison of C++ and Fortran 90 for object-oriented scientific programming	20
Kulhánek, J.  A transformation method for numerical solution of the Schrödinger equation	37
Joó, I. Order- $\alpha$ radiative correction calculations for oriented allowed nuclear $\beta$ decays	99
Rejcek, J.M., S. Datta, N.G. Fazleev, J.L. Fry and A. Korzeniowski Application of the Feynman-Kac path integral method in finding the ground state of quantum systems	108
Simos, T.E.  Eighth order methods for accurate computations for the Schrödinger equation	127
Nakano, A.  Fuzzy clustering approach to hierarchical molecular dynamics simulation of multiscale materials phenomena	139
Teboul, V. and S. Chaussedent Cutoff effect in molecular dynamics simulations of interaction induced light scattering spectra	151
Barrera, G.D. and R.H. de Tendler Simulation of metals and alloys using quasi-harmonic lattice dynamics	159
Ferré, R.  Large scale micromagnetic calculations for finite and infinite 3D ferromagnetic systems using FFT	169
Mohankumar, N. and A. Natarajan A method for the numerical evaluation of a Hadamard finite part integral	187
Computer programs in physics	
Bravar, A., K. Kurek and R. Windmolders  POLDIS. A Monte Carlo for POLarized (semi-inclusive) Deep Inelastic Scattering	42
Salam, G.P.  OEDIPUS: Onium Evolution, Dipole Interaction and Perturbative Unitarisation Simulation	62

Ring, P., Y.K. Gambhir and G.A. Lalazissis  Computer program for the relativistic mean field description of the ground state properties of even-even axially deformed nuclei	77
Carver, G.D., P.D. Brown and O. Wild  The ASAD atmospheric chemistry integration package and chemical reaction database	197
Fernández Rico, J., R. López, I. Ema and G. Ramírez Calculation of many-centre two-electron molecular integrals with STO	216
Sattin, F.  A routine to compute the energy and wave function for one-electron two-nuclei molecular systems	225
Portugal, R. and S.L. Sautú Applications of Maple to General Relativity	233
Liolios, Th.E.  Algebraic and numerical manipulation of the even-power-series central potentials by means of the Hypervirial Theorems technique	254
Segura, J., P. Fernández de Córdoba and Yu.L. Ratis  A code to evaluate modified Bessel functions based on the continued fraction method	263
Gil, A. and J. Segura  Evaluation of Legendre functions of argument greater than one	273
Jaffe, D.E. and S. Youssef Erratum to "Bayesian estimate of the effect of $B^0\overline{B}^0$ mixing measurements on the CKM matrix elements" [Computer Physics Communications 101 (1997) 206]	284